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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:

Taylor et al.

Confirmation No.:

2785

Application No.: 10/720,019

Art Unit:

1642

Filed:

November 21, 2003

Examiner:

To Be Assigned

For:

ANTIBODIES TO A TUMOR-ASSOCIATED SURFACE

Attorney Docket No.: 9426-062-999

ANTIGEN FOR DELIVERY OF

DIAGNOSTIC AND

THERAPEUTIC AGENTS

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.56 and § 1.97

Mail Stop Missing Parts Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure imposed by 37 C.F.R. § 1.56 to inform the Patent and Trademark Office of all references coming to the attention of each individual associated with the filing or prosecution of the subject application, which are or may be material to the patentability of any claim of the application, Attorneys for Applicants hereby direct the Examiner's attention to references AA-CD listed on the attached revised PTO-1449 Form.

Pursuant to 37 C.F.R. § 1.98(d), a copy of references AA-CD is not enclosed. References AA-BU have previously been submitted by Applicants to the Patent and Trademark Office and references BV-CD have been previously cited by the Examiner in prior U.S. Patent Application No. 09/392,500 filed September 9, 1999, to which this application claims priority under 35 U.S.C. § 120. Accordingly, the Examiner's attention is directed to U.S. Patent Application No. 09/392,500 for copies of references AA-CD.

Applicants respectfully request that the Examiner review the foregoing references and that the references be made of record in the file history of the application.

Pursuant to 37 CFR § 1.97(b), since this Information Disclosure Statement is being filed before the mailing of a first Office Action on the merits, it is believed that no fee is due in connection herewith. However, should the Patent and Trademark Office determine otherwise, please charge the required fee to Jones Day Deposit Account No. 50-3013.

Respectfully submitted,

Date:

July 9, 2004

31,232

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LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

ATTY DOCKET NO.	APPLICATION NO				
9426-062-999	10/720,019				
APPLICANT					
Taylor et al.					
FILING DATE	GROUP				
November 21,2003	1642				

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BV	5,376,356	12/27/94	Morgan, Jr.			
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FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSL	ATION
						YES	NO
AA	WO 9839659	09/11/98	PCT				
AB	WO 9738136	10/16/97	PCT				
AC	WO 9637234	11/28/96	PCT				
AD	EP 0448464	09/25/91	Europe				
BN	WO 87/06344	10/22/87	PCT				
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	OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)
AE	Castronovo V et al., "Possible role of human natural anti-Gal antibodies in the natural antitumor defense system," J Natl Cancer Inst. 1989 Feb 1;81(3):212-6.
AF	Clark JI et al., "Natural killer cell-directed bispecific antibodies," in <u>Bispecific Antibodies</u> , Fanger MW (ed.), RG Landis Co., Austin, pp. 77-88.
AG	de Gast GC et al., "Clinical perspectives of bispecific antibodies in cancer," Cancer Immunol Immunother. 1997 Nov-Dec;45(3-4):121-3.
AH	Desai PR et al., "Anti-Thomsen-Friedenreich (T) antibody-based ELISA and its application to human breast carcinoma detection," J Immunol Methods. 1995 Dec 27;188(2):175-85.
AI	Dodds and Sim (eds.), Complement: A Practical Approach, 1997, Oxford University Press.
AJ	Edberg JC et al., "Quantitative analyses of the relationship between C3 consumption, C3b capture, and immune adherence of complement-fixing antibody/DNA immune complexes," J Immunol. 1988 Dec 15;141(12):4258-65.
AK	Gorter A et al., "Expression of CD46, CD55, and CD59 on renal tumor cell lines and their role in preventing complement-mediated tumor cell lysis," Lab Invest. 1996 Jun;74(6):1039-49.
AL	Gross DJ et al., "An immunochemical assay for natural IgM antibodies with an affinity to galactose and whose titer is reduced in the sera of cancer patients," Eur J Cancer Clin Oncol. 1988 Mar;24(3):363-7.
AM	Hakomori S, "Tumor malignancy defined by aberrant glycosylation and sphingo(glyco)lipid metabolism," Cancer Res. 1996 Dec 1;56(23):5309-18.
AN	Higuchi et al., "Natural humoral immunity in patients with malignant diseases", J Clin Lab Immunol. 1980; 4:141-143.
AO	Irie K et al., "Evidence for in vivo reaction of antibody and complement to surface antigens of human cancer cells, "Science. 1974 Nov 1;186(4162):454-6.

• ,	AP	Jarvis GA et al., "Expression and function of the complement membrane attack complex inhibitor protectin (CD59) in human prostate cancer." Int J Cancer. 1997 Jun 11;71(6):1049-55.
•	AQ	Maenpaa A et al., "Expression of complement membrane regulators membrane cofactor protein (CD46), decay accelerating factor (CD55), and protectin (CD59) in human malignant gliomas," Am J Pathol. 1996 Apr;148(4):1139-52.
	AR	Makrides SC et al., "Cell surface expression of the C3b/C4b receptor (CR1) protects Chinese hamster ovary cells from lysis by human complement," J Biol Chem. 1992 Dec 5;267(34):24754-61.
•	AS	Mehta RL et al., "Binding and catabolism of aggregated immunoglobulins containing C3b by U937 cells," J Immunol. 1986 Mar 1;136(5):1765-71.
	AT	Mollnes TE et al., "Activation of the third component of complement (C3) detected by a monoclonal anti-C3'g' neoantigen antibody in a one-step enzyme immunoassay," J Immunol Methods. 1987 Aug 3;101(2):201-7.
	AU	Niculescu F et al., "Persistent complement activation on tumor cells in breast cancer," Am J Pathol. 1992 May;140(5):1039-43.
	AV	Okada H and Baba T, "Rosette formation of human erythrocytes on cultured cells of tumour origin and activation of complement by cell membrane," Nature. 1974 Apr 5;248(448):521-2.
	AW	Petronis JD et al., "Indium-111 capromab pendetide (ProstaScint) imaging to detect recurrent and metastatic prostate cancer," Clin Nucl Med. 1998 Oct;23(10):672-7.
	AX	Reiter Y et al., "Killing of human tumor cells by antibody C3b conjugates and human complement," Targeted Diagn Ther. 1989;2:119-35.
	AY	Renner C et al., "Tumor therapy by immune recruitment with bispecific antibodies," Immunol Rev. 1995 Jun;145:179-209.
	AZ	Seegal BC et al., "Immunoglobulins, complement and foreign antigens in human tumor cells," Int Arch Allergy Appl Immunol. 1976;52(1-4):205-11.
	BA	Segal DM et al., "T-cell targeted cytotoxicity," in <u>Bispecific Antibodies</u> , Fanger MW (ed.), RG Landis Co., Austin, pp. 27-42.
_	BB	Springer GF, "Immunoreactive T and Tn epitopes in cancer diagnosis, prognosis, and immunotherapy," J Mol Med. 1997 Aug;75(8):594-602.
	ВС	Springer GF, "T and Tn, general carcinoma autoantigens," Science. 1984 Jun 15;224(4654):1198-206.
	BD	Taylor RP et al., "Clearance of blood-borne pathogens mediated through bispecific monoclonal antibodies bound to the primate erythrocyte complement receptor," Cancer Immunol Immunother. 1997 Nov-Dec;45(3-4):152-5.
	BE	Taylor RP et al., "Use of heteropolymeric monoclonal antibodies to attach antigens to the C3b receptor of human erythrocytes: a potential therapeutic treatment," Proc Natl Acad Sci U S A. 1991 Apr 15;88(8):3305-9.
	BF	Taylor RP et al., "Quantitative analyses of C3b capture and immune adherence of IgM antibody/dsDNA immune complexes," J Immunol. 1989 Dec 1;143(11):3626-31.
	BG	Thornton BP et al., "Function of C3 in a humoral response: iC3b/C3dg bound to an immune complex generated with natural antibody and a primary antigen promotes antigen uptake and the expression of co-stimulatory molecules by all B cells, but only stimulates immunoglobulin synthesis by antigen-specific B cells," Clin Exp Immunol. 1996 Jun;104(3):531-7.
	ВН	Tosic L et al., "Preparation of monoclonal antibodies to C3b by immunization with C3b(i)-sepharose," J Immunol Methods. 1989 Jun 21;120(2):241-9.
	BI	Vetvicka V et al., "Regulation of CR3 (CD11b/CD18)-dependent natural killer (NK) cell cytotoxicity by tumour target cell MHC class I molecules," Clin Exp Immunol. 1999 Feb;115(2):229-35.
	BJ	Vetvicka V et al., "Targeting of natural killer cells to mammary carcinoma via naturally occurring tumor cell-bound iC3b and beta-glucan-primed CR3 (CD11b/CD18)," J Immunol. 1997 Jul 15;159(2):599-605.
	BK	Vetvicka V et al., "Soluble beta-glucan polysaccharide binding to the lectin site of neutrophil or natural killer cell complement receptor type 3 (CD11b/CD18) generates a primed state of the receptor capable of mediating cytotoxicity of iC3b-opsonized target cells," J Clin Invest. 1996 Jul 1;98(1):50-61.
	BL	Weisman HF et al., "Soluble human complement receptor type 1: in vivo inhibitor of complement suppressing post-ischemic myocardial inflammation and necrosis," Science. 1990 Jul 13;249(4965):146-51.
	во	Dempsey et al. C3d of complement as a molecular adjuvant: bridging innate and acquired immunity. Science. 1996 Jan 19;271(5247):348-50
	BP	Deo et al. Bispecific molecules directed to the Fc receptor for IgA (Fc alpha RI, CD89) and tumor antigens efficiently promote cell-mediated cytotoxicity of tumor targets in whole blood. J Immunol. 1998 Feb 15;160(4):1677-86
	BQ	Irie et al. Demonstration of in vivo reaction of antibody and complement to human cancer cells by mixed hemadsorption. AACR Abstracts, 1975, pp170, #679
	BR	Neri et al. Detection of circulating immune complexes in gynecological malignancies. Eur J Gynaecol Oncol.

•	BS	Paul, WE (editor) Fundamental Immunology (3 rd Ed.) pp 934 in Chapter 26
	ВТ	Schlom, J. Monoclonal antibodies: They're more and less than you think. In <i>Monoclonal Antibody Therapy</i> 1988 Waldmann (Vol. Ed) pp 95-133.
	BU	Tamerius et al. Detection of a neoantigen on human C3bi and C3d by monoclonal antibody. J Immunol. 1985 Sep;135(3):2015-9
ı,	BW	Seya T et al., "Complement-mediated tumor cell damage induced by antibodies against membrane cofactor protein (MCP, CD46)," J Exp Med. 1990 Dec 1;172(6):1673-80.
	ВХ	Emery and Harris, "Strategies for Humanizing Antibodies," Antibody Engineering (textbook), 2 nd edition, pp. 159-160 and 160-161.
	BY	Perlmann H et al., "Interaction of target cell-bound C3bi and C3d with human lymphocyte receptors. Enhancement of antibody-mediated cellular cytotoxicity," J Exp Med. 1981 Jun 1;153(6):1592-603.
	BZ	Michael EJ et al., "Synthesis of iC3b/C3d and expression of a CD21-like protein by malignant epithelium," FASEB Journal. 1993;7(3):A375.
•	CA	Paul (Fundamental Immunology, 3 rd edition, 1993, pages 922-924 and 926).
	СВ	Xing PX et al., "Second generation anti-MUC1 peptide monoclonal antibodies," Cancer Res. 1992 Apr 15;52(8):2310-7.
	CC	Clark (In: Protein Engineering of Antibody Molecules for Prophylactic and Therapeutic Applications in Man, 1993, Mike Clark, Ed. pages 3-4).
	CD	Roitt et al. (Immunology (text), 3 rd edition, 1993, page 13.7).
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EXAMINER	DATE CONSIDERED

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.